REMARKS

Objections to Specification

Applicant thanks the Examiner for identifying informalities in the specification. Applicant believes that the current amendments to the specification obviate the Examiner's objections. In particular, on page 11, line 8, the term "at least" is replaced with the term "less than," and on page 22, line 2, the number has been corrected. No new matter is added by these modifications. Accordingly, Applicant respectfully requests entry of the amendments and reconsideration and withdrawal of the objections.

In addition, the paragraph starting at page 5, line 3 is currently amended to address minor errors of a typographical nature. In the amended paragraph, the term "waste" has been replaced with the term "waist." No new matter is added by the amendments. Accordingly, Applicant respectfully requests entry of this amendment.

In the Claims

Claims 73-76 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-23 and 26-81 stand rejected under 35 U.S.C. § 102(b). Claims 24-25 stand rejected under 35 U.S.C. § 103(a). Claims 1, 6, 28, 33, 42, 45, 52, 55, 62, 66, 71, and 73-77 are amended herein, and claims 82-85 have been added. No new matter is submitted by the claim amendments or additions. Claims 1-85 are now pending in the application. Applicant respectfully requests entry of the amendments and reconsideration and allowance of the pending claims in view of the following remarks.

Claims 6, 33, 45, 55, 66, and 77 are currently amended to clarify that the claimed AUL value is measured at 0.3 psi. Support for this series of amendments can be found on page 8, lines 11-12 of the specification, where the AUL pressure is established. Accordingly, Applicant respectfully requests entry of these amendments.

Claims 6, 33, 45, 55, 66, and 77 are also amended to recite "and the superabsorbent polymer comprises a stabilizing agent." Support for these amendments

is found on page 8, lines 17 et seq. of the present specification, wherein Applicant provides "[o]ptionally, the polymer is combined with a stabilizing agent" and further provides specific examples of suitable stabilizing agents. Accordingly, Applicant respectfully requests entry of these amendments.

Claim 28 has been currently amended to correct a typographical error. In the amended paragraph, several occurrences of the term "waste" have been replaced with the term "waist." Accordingly, Applicant respectfully requests entry of this amendment.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 73-76 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More specifically, the Examiner alleges that the term "the composition" in claims 73-76 lacks sufficient antecedent basis. Office Action, page 2. Applicant has currently amended claims 73-76, replacing the term "composition" with the term "absorbent core" which does not narrow the scope of the claims. Applicant respectfully submits that there is proper antecedent basis for the claims. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw these rejections.

Rejection under 35 U.S.C. § 102

A. Melius, *et al.* (5,601,542)

Claims 1-8, 13-19, 26, 28-35, 40-47, 52-57, 62-66 and 71-77 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,601,542 to Melius, *et al.* ("Melius").

With respect to independent claims 1, 28, 42, 52, 62 and 71, the Examiner alleges that Melius discloses a superabsorbent polymer that has a Gel Integrity Index of less than about 500 kg mm. Specifically, Applicant has currently amended claims 1, 28, 42,

52, 62 and 71 to recite "wherein the superabsorbent polymer has an AUL value of less than about 25 g/g at 0.3 psi." Applicant has also added claims 82-85 directed to an absorbent article comprising a superabsorbent polymer having a GII of less than about 10kg mm.

With regard to the claims which recite an AUL (Absorbency Under Load) range, the Examiner alleges that Melius discloses a superabsorbent polymer that has an AUL value of less than about 25 g/g, in Table 5, column 21. However, AUL values are referenced to a pressure measurement. In Tables 2 and 5 of Melius, AUL values are disclosed at different pressures, only one of which, 0.29 psi, approximating the 0.3 psi measurement used in the present invention. Of the samples tested at 0.29 psi, *none* of the samples exhibited an AUL below 25 g/g. In fact, the lowest AUL was 25.7 g/g. Further, Melius discloses a list of "exemplary... superabsorbent materials suitable for use in the present invention" which were included in the test samples. Eight of the samples were included in Table 2 and two samples were included in Table 5. The AUL at 0.29 psi for these "exemplary" materials are *all in excess of 29 g/g*.

The present specification states that "[a]s used herein, AUL, refers to measurements at 0.3 psi" (page 8, lines 11-12). Therefore, Melius fails to teach a superabsorbent polymer that has an AUL value of less than about 25 g/g at 0.3 psi, as recited in the claims, and thus fails to anticipate independent claims 1, 28, 42, 52, 62 and 71. Accordingly, Applicant respectfully requests reconsideration and allowance of pending claims 1, 28, 42, 52, 62 and 71.

Claims 2-8, 13-15, 17-19, 26, 29-35, 40-41, 43-47, 53-57, 63-66 and 72-77 depend from one of the independent claims discussed above, and therefore contain the same limitations as the independent claims. As such, Applicant submits that for at least the same reasons given above, Melius also fails to anticipate these dependent claims. Accordingly, Applicant respectfully requests reconsideration and allowance of pending claims 2-8, 13-15, 17-19, 26, 29-35, 40-41, 43-47, 53-57, 63-66 and 72-77.

B. Chmielewski (5,891,120)

Claims 1-23 and 26-81 are rejected under U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,891,120 to Chmielewski ("Chmielewski"). Applicant respectfully traverses the Examiner's grounds for rejection for at least the following reasons.

With respect to independent claims 1, 16, 28, 42, 52, 62 and 71, the Examiner alleges the following:

> Chmielewski remains silent as to the Gel Integrity Index of the superabsorbent polymer, but discloses a superabsorbent polymer of the *same type* disclosed in the instant specification as having a Gel Integrity Index of less than about 500 kg mm. The Gel Integrity Index of a superabsorbent polymer is an inherent property, and therefore a superabsorbent polymer of Chmielewski meets the limitation of the claim. [emphasis added]

Office Action, page 8. Specifically, Chmielewski discloses that a "[p]referred ... superabsorbent polymer (SAP) is Hoechst-Celanese IM-4510 surface cross-linked superabsorbent polyacrylate" (col. 4, lines 10-12). In the present application, Applicant provides that "[p]referably, the superabsorbent is a polyacrylate" (page 8, line 4) which is optionally combined with a stabilizing or crosslinking agent (page 8, lines 17-18). However, the mere description of "cross-linked polyacrylate superabsorbent" does not establish that the two materials are of the "same type." On the contrary, slight changes in the chemical structure of a cross-linked polyacrylate superabsorbent polymer will produce significant changes in the properties (*e.g.* Gel Integrity Index). Further, a superabsorbent manufacturer can design the chemical structure of a cross-linked polyacrylate superabsorbent to achieve specified properties (*e.g.* to have a Gel Integrity Index of less than about 500 kg mm). Thus, not all "cross-linked polyacrylate superabsorbents" are alike.

The superabsorbent properties recited in the present claims are Gel Integrity Index ("GII") and Absorbency Under Load ("AUL"). The basis for this is that Applicant "unexpectedly discovered that superabsorbent polymers having a Gel Integrity Index of less than about 500 kg mm provide superior absorbency characteristics. Any superabsorbent polymer having the physical characteristics recited herein are suitable."

Page 7, line 24 - page 8, line 2. Additionally, Applicant discovered that "[t]he present invention is unexpectedly effective with superabsorbent polymers having a low AUL." Page 8, lines 10-11. As the Examiner notes, Chmielewski is silent to the GII of the superabsorbent. Chmielewski is similarly silent to the AUL of the superabsorbent, and any other physical properties of a superabsorbent material. Rather, Chmielewski discloses an absorbent product wherein the AUL of the *absorbent structure* (comprising both SAP and cellulosic fibers) is not less than 12 g/g. The AUL of the absorbent structure described in the reference should not be compared to the AUL of the superabsorbent recited in the present claims.

The Examiner asserts that "[t]he Gel Integrity Index of a superabsorbent polymer is an inherent property." Office Action, page 8. As stated above, Applicant submits that a superabsorbent material (*e.g.* a cross-linked polyacrylate) can be formulated to have a range of Gel Integrity Index values. Support for this assertion may be found, for example, within U.S. Patent No. 5,843,059 to Niedermeyer, *et al.* ("Niedermeyer"), which discloses a number of superabsorbent materials and their Gel Integrity Index values. "All of the superabsorbent materials tested were polyacrylic acid superabsorbents." Niedermeyer, col. 17, lines 27-28. Table 2 in columns 17-18 discloses the Gel Integrity Index values for the tested polymers, which *range from 392.4 kg mm to 2084.3 kg mm.* Accordingly, Applicant submits that Gel Integrity Index is *not* an *inherent* property of a superabsorbent polymer, nor is it an inherent property of cross-linked polyacrylate superabsorbent polymers.

For at least these reasons, Applicant submits that Chmielewski fails to anticipate independent claims 1, 16, 28, 42, 52, 62 and 71. The Examiner asserts similar grounds of rejection for claims 9-12, 20-23, 27, 36-39, 48-51, 58-61, 69-70 and 79-81, which recite a different (lower) value for the GII of the superabsorbent, but this value does not change the fundamental assertion that Chmielewski fails to anticipate these claims for at least the same reasons. Claims 2-8, 13, 17-20, 26, 29-35, 40-41, 43-47, 53-57, 63-68 and 72-78 depend from one of the claims addressed above, and therefore contain the same

limitation on the superabsorbent GII value. As such, Applicant submits that Chmielewski also fails to anticipate these claims for at least the same reasons. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection and allow pending claims 1-23 and 26-81.

Rejections under 35 U.S.C. § 103

To establish a *prima facie* case of obviousness, three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Applicant respectfully submits that the burden of establishing a *prima facie* case of obviousness has not been met by the Examiner in this case. Moreover, even if a *prima facie* case of obviousness was established, it would be rebutted by secondary evidence of nonobviousness.

A. Melius in view of Roberts

Claims 24-25 are rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,601,542 to Melius, *et al.* as applied to claim 16, and further in view of U.S. Patent No. 3,875,942 to Roberts, *et al.* ("Roberts").

As previously noted, Melius fails to teach, or in any way suggest, an absorbent article that has a GII of less than about 500 kg mm, and an AUL of 25 g/g at 0.3 psi as recited by claim 16. Claims 24-25 depend from claim 16 so they also include this recitation. Roberts fails to remedy the deficiencies of Melius because it also fails to teach or suggest these properties. Therefore, the references in combination do not teach or suggest all the elements of the claims, and do not support a *prima facie* case of

obviousness. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw these rejections and allow the pending claims.

B. Chmielewski in view of Roberts

Claims 24-25 are rejected under U.S.C. § 103(a) as being unpatentable over by U.S. Patent No. 5,891,120 to Chmielewski as applied to claim 16, and further in view of U.S. Patent No. 3,875,942 to Roberts, *et al.* As stated above, Applicants submit that Chmielewski fails to teach, or in any way suggest, an absorbent article comprising an absorbent article that has a GII of less than about 500 kg mm, as recited by claim 16. Dependent claims 24-25 depend from claim 16 so they also include this element. The Roberts reference fails to overcome the fundamental deficiency of the Chmielewski patent because it also fails to teach or suggest the recited physical properties of the superabsorbent. Therefore, the prior art references in combination do not teach or suggest all the claim limitations, and do not support a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw these rejections and allow the pending claims.

CONCLUSION

For at least the reasons outlined above, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and allowance of the pending claims are respectfully solicited. Should there be anything further required to place the application in better condition for allowance, Examiner Anderson is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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